



Environmental permit awarded for Princess Elisabeth Island, a key link in our future energy supply

BRUSSELS | Construction of the Belgian energy island will start early next year. North Sea Minister Vincent Van Quickenborne has approved the relevant environmental permit. A consortium comprising Belgian marine construction companies DEME and Jan De Nul has already started preparing the site where it will build the caissons (concrete foundations) in Vlissingen (North Sea Port). In the meantime, Elia is putting the final touches on a nature-inclusive design for the island that will be submitted later this year. Together with outside experts, the design was examined to determine which items could be adjusted or added with a view to boosting biodiversity on and around the island.

Princess Elisabeth Island will be an energy hub 45 km off the coast connecting new wind farms and additional interconnectors (to the UK and Denmark) to Belgium's onshore power grid. Obtaining the permit, which Elia applied for in January 2023, is a key condition for building the world's first artificial energy island in the North Sea. Construction will take around two years (March 2024 to August 2026).



Preparing the worksite in Vlissingen

In late June 2023, an environmental permit was granted for the construction of caissons on the premises of Verbrugge Zeeland Terminals at Bijleveldhaven, a location in North Sea Port where the 23 concrete caissons (each of which is approximately 60 m long, 30 m wide and 30 m high) will be built, launched, stored and, in the summers of 2024 and 2025, towed to the offshore location and immersed. Afterwards the island will be sand fill reclaimed and prepared for the construction of the high-voltage electrical infrastructure.

The project will be coordinated from Port Oostend

Whilst the construction work is being undertaken in Vlissingen, the Princess Elisabeth Island project will be coordinated from Port Oostend. Project logistics and engineering activities will be moved over to the newly renovated Stapelhuis warehouse in early November 2023. More specifically, around 80 jobs will be involved.

“We plan to continue developing the North Sea as Belgium's leading energy centre and Princess Elisabeth Island will be a crucial part of this process. With this environmental permit, we are now taking a major step forward in developing the Princess Elisabeth Zone, our second offshore wind zone. The first wind turbines will commission in 2028, delivering additional offshore green energy for our families and companies. Since Belgium is also the first country in the world to install wind turbines in protected marine areas, we are delighted that Elia is fully committed to nature-inclusive design – further evidence of the power of taking an innovative approach, the potential of renewable energy and the importance of protecting our marine environment.”

Vincent Van Quickenborne, Deputy Prime Minister and Minister for Justice and the North Sea

“Belgium is a leader in offshore wind. It is accelerating the energy transition via a fourfold increase in offshore wind capacity in the Belgian North Sea, the construction of an energy island and new interconnectors with countries which surround the North Sea. The energy island will become an offshore wind energy hub that will provide green, affordable energy for our families and companies. The permit that we have been granted for the Princess Elisabeth Island is another step forward in our journey of turning the North Sea into a green energy plant. It is important that we take marine life into account, both above and below water. It is good that Elia is continuing to focus on Nature Inclusive Design.”

Tinne Van der Straeten, Federal Minister for Energy

“North Sea Port is keen to contribute to Europe's energy transition, together with Elia, DEME and Jan De Nul. By expanding international high-voltage connections and incorporating

ever-increasing amounts of renewable power, Elia is promoting both the integration of the European energy market and the decarbonisation of society. This project has further strengthened our long-term collaboration.”

Daan Schalck, CEO North Sea Port

Nature-inclusive design promotes marine biodiversity

For months now Elia has been working with experts from public and private institutions, universities and non-governmental organisations to optimally integrate the energy island's infrastructure into the marine environment. In opting for a nature-inclusive design, the island's potential for marine biodiversity has been fully exploited. Based on this research, specific measures will be formulated that will then be submitted later this year and ultimately integrated into the island's design.

“The unique collaboration between Elia and marine experts has yielded invaluable findings that will make it possible to integrate Princess Elisabeth Island even better into the surrounding environment, all while complying with the conditions set out in the permit. Elia is fully committed to this approach. We are working closely with experts, whose cooperation we greatly appreciate. This is a unique opportunity to support marine biodiversity in the long term.”

Nicolas Beck, Head of Community Relations Elia

Princess Elisabeth Island

Princess Elisabeth Island will be the first artificial energy island in the world to combine both direct current (HVDC) and alternating current (HVAC). The high-voltage infrastructure on the island will bundle together the export cables from the wind farms in the new Princess Elisabeth Zone while also serving as a hub for future interconnectors with the United Kingdom (Nautilus) and Denmark (TritonLink). In fact, these 'hybrid' interconnectors will have two functions, leading to enhanced efficiency. Not only will they handle power exchanges between countries, but they will also be connected to new offshore wind farms in the North Sea that will eventually supply Belgium with large quantities of renewable energy.

Located some 45 km off the coast and covering 6 hectares, in the middle of the Princess Elisabeth Zone, Princess Elisabeth Island will be built on concrete caissons filled with sand. The island will house almost exclusively transmission infrastructure used to connect new wind farms (up to 3.5 GW) as well as future interconnectors. There will also be a small harbour for maintenance crews and a helideck. Some 300 km of alternating current cables (HVAC) and 60 km of direct current cables (HVDC) will be installed around the island to connect all future offshore facilities to the Belgian high-voltage grid.

About Elia Group

One of Europe's top 5 TSOs

Elia Group is a key player in electricity transmission. We ensure that production and consumption are balanced around the clock, supplying 30 million end users with electricity. Through our subsidiaries in Belgium (Elia) and the north and east of Germany (50Hertz), we operate 19,349 km of high-voltage connections, meaning that we are one of Europe's top 5 transmission system operators. With a reliability level of 99.99%, we provide society with a robust power grid, which is important for socio-economic prosperity. We also aspire to be a catalyst for a successful energy transition, helping to establish a reliable, sustainable and affordable energy system.

We are making the energy transition happen

By expanding international high-voltage connections and incorporating ever-increasing amounts of renewable energy into our grid, we are promoting both the integration of the European energy market and the decarbonisation of society. We also continuously optimise our operational systems and develop new market products so that new technologies and market parties can access our grid, thus further facilitating the energy transition.

In the interest of society

As a key player in the energy system, Elia Group is committed to working in the interest of society. We are responding to the rapid increase in renewable energy by constantly adapting our transmission grid. We also ensure that investments are made on time and within budget, with a maximum focus on safety. In carrying out our projects, we manage stakeholders proactively by establishing two-way communication channels between all relevant parties very early on in the development process. We also offer our expertise to different players across the sector in order to build the energy system of the future.

International focus

In addition to its activities as a transmission system operator, Elia Group provides consulting services to international customers through its subsidiary Elia Grid International. In recent years, the Group has launched new non-regulated activities such as re.alto - the first European marketplace for the exchange of energy data via standardised energy APIs - and WindGrid, a subsidiary which will continue to expand the Group's overseas activities, contributing to the development of offshore electricity grids in Europe and beyond.

The legal entity Elia Group is a listed company whose core shareholder is the municipal holding company Publi-T.

eliagroup.eu

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